Accuracy Is The
Underlying Strategy.

GCTS
TESTING SYSTEMS

Servo Controlled Consolidation Apparatus (CRS-10)

- Constant Rate of Strain (CSR), Constant Gradient (CG), and conventional Consolidation Tests
- Electro-Pneumatic Servo Control
- 10 kN load capacity
- Automatic data logging and report generation
- Custom Specimen sizes available

DESCRIPTION

The GCTS Consolidation Apparatus is capable of performing Controlled Gradient (CG), Constant Rate of Strain (CRS), Incremental (conventional) consolidation tests. The CRS-10 system includes a servo controlled loading frame, stainless steel cell assembly, specimen ring, porous stones, o-ring seals, and necessary plumbing.

During the controlled gradient (CG) test, a pore pressure transducer mounted on the base provides a feedback signal, which is used in the operating software to provide a preset loading rate on the test specimen.

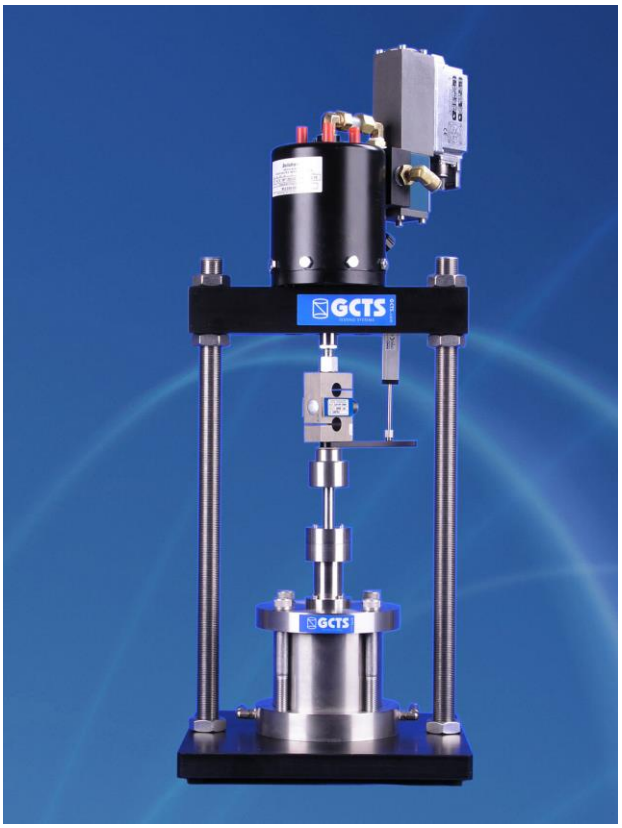
The constant rate of strain test (CRS) can also be performed using the GCTS Consolidation Apparatus. Using deformation sensor, which monitors axial strain on the specimen, the sample is loaded at a preset rate of strain controlled by the system software.

The conventional or incremental consolidation test is performed through application of an axial load on the test specimen at preset loading steps or increments.

This device is also capable of performing permeability tests while conducting conventional consolidation tests. Both falling head and constant head tests can be performed using the optional PCP-100 pressure panel. Fluid flow is measured directly on the graded tubes included with the PCP-100 pressure panel. In addition, an optional volume change sensor can be supplied to automatically measure and calculate permeability values.

The GCTS CRS-10 Consolidation Apparatus includes a loading frame, load cell, deformation sensor, consolidation cell, pore pressure sensor, servo valve and the SCON1500 servo controller and data acquisition system to automatically perform the above tests. Windows software is also provided to set the tests as well as to monitor in real time the test data and data reduction.

The standard unit includes specimen rings for 63 mm (2.5 inch) diameter specimens with a 25 mm (1 inch) height. The maximum specimen diameter is 75 mm (3 inch). Please specify required specimen size when ordering.



The CRS-10 system can be easily upgraded to a full triaxial test system. Consult GCTS for pricing information.

GCTS can also provide consolidation systems for larger specimens and larger loads. Other options include, volume change device to automatically measure soil permeability, bender elements to measure shear wave velocities and HAEV ceramic disks to obtain soil-water characteristic curves (SWCC). Please contact GCTS to inquire about these or any other option.

SPECIFICATIONS

Maximum Load:	10 kN
Standard Specimen size:	63 mm (2.5 inch)
Maximum Specimen Size:	75 mm (3 inch)
Operation:	110/220 VAC
	1,000 kPa dry, compressed air

SHIPPING

Weight:	350 kg.
Volume:	1.5 m^3 approximately